

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-10 (Canceled).

Claim 11 (New): A device for controlling quality of an operation of laser-beam welding, resurfacing, or machining of a part, comprising:

at least one gas-blowing nozzle, the nozzle being offset behind a laser beam in a direction of operation,

the nozzle comprising a duct for ejection of a flow of the gas and equipped with at least one photosensitive sensor disposed behind the ejection duct to receive at least one light signal penetrating into the ejection duct in a direction opposite to the ejection of the gas flow and originating from interaction between the laser beam and a material of the part during the operation of welding, resurfacing, or machining.

Claim 12 (New): A device according to claim 11, wherein said gas-blowing nozzle further comprises an extension duct placed in extension of the ejection duct, and wherein the photosensitive sensor is disposed in the extension duct.

Claim 13 (New): A device according to claim 11, wherein the gas-blowing nozzle further comprises an extension duct placed in an extension of the ejection duct and a lateral duct opening into the extension duct, the photosensitive sensor being disposed in the lateral duct, and wherein a reflecting plate is disposed at a junction of the extension duct and lateral duct to deflect the light signal toward the photosensitive sensor.

Claim 14 (New): A device according to claim 13, wherein the reflecting plate is semitransparent.

Claim 15 (New): A device according to claim 11, wherein the photosensitive sensor is sensitive to infrared radiation.

Claim 16 (New): A device according to claim 11, wherein the photosensitive sensor is sensitive to ultraviolet radiation.

Claim 17 (New): A device according to claim 11, wherein the photosensitive sensor is isolated from the gas flow by a leak-tight partition that is optically transparent at least in a range of sensitivity of the photosensitive sensor.

Claim 18 (New): A device according to claim 11, further comprising means for filtering, amplifying, and recording an output signal of the photosensitive sensor.

Claim 19 (New): A method for controlling an operation of laser-beam welding, resurfacing, or machining of a part, wherein at least one light signal penetrating into the ejection duct in the direction opposite to the ejection of the gas flow and originating from the interaction between the laser beam and the material of the part during the operation of welding, resurfacing, or machining is received by a device according to claim 11,

wherein variation of the at least one light signal as a function of time is compared with at least one reference signal obtained under conditions such that no unacceptable volume or surface defect is present on the part, and

wherein acceptance or rejection of the welded or machined part is decided by comparison of the light signal measured during the operation of welding, resurfacing, or machining and the reference signal.

Claim 20 (New): A method for controlling an operation of laser-beam welding, resurfacing, or machining of a part, wherein at least one light signal penetrating into the ejection duct in the direction opposite to the ejection of the gas flow and originating from the interaction between the laser beam and the material of the part during the operation of welding, resurfacing, or machining is received by a device according to claim 11,

wherein variation of the at least one light signal as a function of time is compared with at least one reference signal obtained under conditions such that no unacceptable volume or surface defect is present on the part, and

wherein the welding, resurfacing, or machining parameters are automatically controlled as a function of the comparison of the at least two signals.